REMARKS

The August 2, 2005 Final Office action rejected claims 1-4, 9-18, 21-26 and 28-50 under 35U.S.C.102(b) as anticipated by Severson et al. ('431), claim 5 under 35 U.S.C.103(a) over Severson et al. ('431) in view of Borza et al., and claims 19, 20 and 27 under 35U.S.C.103(a) over Severson et al. ('431) in view of Severson et al. ('318). In response, the claims of the present application have been amended to clarify patentable features of the invention.

Rejected claims 1-4, 9-18, 21-26 and 28-48 all call for a "random time distribution" for the simpler sound events that are combined into a complex sound. The Examiner apparently interpreted the phrase "random time distribution" as applying to the Severson et al. ('431) technique (described at column 5, lines 13-30) of randomly varying the identity of the sound segment that is inserted at any given point in a sequence of such segments. Although the identity of the segment is varied randomly, it is clear from Severson et al. ('431) that the time at which each segment begins is right at the end of the previous segment. Accordingly, there is no randomness as to when the segments occur in time.

The term "random time distribution" was intended in the present application to refer to the fact that the time delays between the triggering of successive segments are random, as opposed to Severson et al's. predetermined segment trigger times at the end of each preceding segment. (The term "sound segment" in Severson

et al. may be taken as corresponding to the "simpler sound event" of the present application).

In Severson et al. ('431) a series of sound segments, which may be chosen randomly, are taken from an otherwise continuous sound and re-assembled into a continuous sound sequence. Each segment begins immediately after the end of the preceding segment, with no overlaps or gaps between segments. By contrast, in the preferred embodiment of the present invention, simpler sound events are combined together with random time delays between triggering the initiations of at least some of the simpler sound events in the sequence. This can result in multiple sound events overlapping, or in gaps between events, unlike Severson et al. in which the sound segments are continuous and sequential. Although Severson et al. refers to the possibility of "silent pauses" between sound segments, such pauses would be deliberately inserted and not the result of any random selection (column 2, lines 46-48).

A more detailed description of the above summary for the Severson et al. operation is provided in the patent as follows:

-Column 2, lines 33-36: "Then these independent segments are re-assembled into a continuous, never-repeating sound sequence based on selecting the next sound segment according to some statistical algorithm."

-Column 2, lines 60-67: "In general, the method includes… selecting one of the sound segments according to the probably density function; playing the selected sound segment; and repeating said selecting and playing

steps thereby generating non-looped continuous sound." (emphasis added)

-Column 8, lines 63-66: "To further increase the depth and realism of continuous sound animation it is possible to have one or more aspects of the sound generation and sequencing be responsive to various events or inputs." (emphasis added)

-Column 11, lines 33-37 (RSS implementation): "When the Digital Sound Generator, 306, is finished with playing out the present sound record, it will accept the new address, and request from Sound Memory, 307, the sound record at the address in Address Latch, 305."

-Column 11, lines 59-61: "If there is more than 1 sound record in the memory, 307, then this embodiment will play a continuous series of sound records that will be randomly sequenced..." (emphasis added)

-Column 14, lines 3-5: "Summary of New Concepts
1. The concept of randomly sequencing a set of sounds to produce a never-repeating continuous sound effect." (emphasis added)

Support for the random distribution of times for the initiation of sound events with the present invention is provided in the specification as follows:

-Page 6, lines 24-26: "The trigger process selects a random time lag between subsequent events that make up the large-scale or complex events."

-Page 7, lines 3-8: "For example, ambient sound such as cricket chirps are typically generated at a constant average rate. That is, while the time between individual chirps fluctuates randomly to provide a natural environment, the average time between chirps is constant over a large time period."

-Page 8, line 3 - page 9, line 14: "There are two main embodiments of the trigger process, both of which are characterized by a particular statistical distribution of the time between individual events. In the embodiment of FIG. 3A, the trigger process samples white noise and generates events when a strongly low pass-filtered noise signal crosses zero in an upward-going direction... An alternative embodiment of the trigger process is illustrated in FIG. 3B. In this embodiment, event generation is based directly on predefined random distribution. After an event is generated, a random generator selects a value of the time delay, Δt until the next event should be generated. After the selected time delay passes, a new event is generated. This new event then triggers the random generator to select a time delay for the next event according to the predefined random distribution."

Independent claims 1, 35 and 50 have been amended herein to require that the simpler sound events be generated in a sequence with simpler sound events in said sequence having random time delays between their initiations (claims 1 and 35), or random time delays between the triggering of successive simpler sound events (claim 50). These claims, along with their dependent claims 2-5, 9-14, 16-34 and 36-48, accordingly patentably distinguish over Severson et al. ('431). The remaining inde-

pendent claim 49 now requires respective time delays between the trigger times of at least some kinds of successive sound events that are independent of the durations of said simpler sound events, which also patentably distinguishes from Severson et al. ('431). Claim 15 has been cancelled as redundant over claim 16, while claims 6-8 were previously allowed. While claim 5 was rejected over Severson et al. ('431) in view of Borza et al., and claims 19, 20 and 27 were rejected over Severson et al. ('431) in view of Severson et al. ('318), distinguishing over the principal reference Severson et al. ('431) also makes these claims patentable.

There is an independent basis of patentability for claims 16-28. These claims require that the simpler sound events be characterized by parameters whose values are randomly varied among the simpler sound events, for at least some kinds of simpler sound events. Examples of such parameters are given in claim 14 as wave selection, pitch distribution, pan distribution and amplitude distribution. Neither Severson et al. ('431) nor any other references known to applicants disclose or suggest this feature.

In rejecting claim 16, from which claims 17-28 directly or indirectly depend, the Examiner quoted from column 13, lines 6-21 of Severson et al. ('431). However, this portion of Severson et al. deals with the establishment of a random sequence for playing each different kind of sound record, not with the nature of each record itself. With this feature of the present invention addressed by claims 16-28, by contrast, the "parameters" establish the nature of the simpler sound

events in the first place. In Severson et al. it is assumed that the sound records are fixed, and the quoted section of the patent merely deals with when these fixed records are played. In this aspect of the present invention there is a random selection of the parameters which established the nature of the simpler sound events themselves.

Since all claims remaining in the application have already either been allowed or are now in allowable form, a Notice of Allowance is respectfully requested.

Respectfully submitted,

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Richard S. Koppel

Richard S. Koppel
Registration No. 26,475
Attorney for Applicants

KOPPEL, JACOBS, PATRICK & HEYBL
555 St. Charles Drive, Suite 107
Thousand Oaks, California 91360
Telephone (805) 373-0060
Fax (805) 373-0051
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